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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)	
		AMD-AF01215	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on <u>03/20/2006</u> Signature <u>Shannon Carmo</u> Typed or printed name <u>Shannon Carmo</u>		Application Number	Filed
		10/823,970	04/13/2004
		First Named Inventor	
		OGAWA	
		Art Unit	Examiner
		2818	HOAND, Quoc Dinh
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.			
This request is being filed with a notice of appeal.			
The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.			
I am the			
<input type="checkbox"/> applicant/inventor.		Signature	
<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)		James P. Hao	
		Typed or printed name	
<input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>36,398</u>		(408) 938-9060	
		Telephone number	
<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____		03/20/2006	
		Date	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.			

☒ *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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REMARKS ACCOMPANYING PRE-APPEAL BRIEF REQUEST FOR REVIEW

In response to the final Office Action dated December 23, 2005, Applicants respectfully request a review of the final rejection in the above-identified application. Applicants respectfully submit that the Examiner's rejections of the Claims are improper as an essential element needed for a proper prima facie rejection is missing (e.g., the teaching of all of the recited claim limitations). Claims 1-4, 6-11, and 13-15 are rejected under 35 USC 102(e) as being anticipated by Tanaka. Claims 5 and 12 are rejected under 35 USC 103(a) as being unpatentable over Tanaka in view of Heim.

KEY CLAIM LIMITATIONS THAT ARE NOT MET BY THE CITED REFERENCES

Tanaka does not teach a pad metal layer having a perimeter area and a center area, as set forth in independent Claims 1 and 9. Furthermore, Tanaka does not teach a plurality of vias formed in the interlayer dielectric and positioned in a ring arrangement below the pad metal layer, as recited in Claims 4 and 11 and the respective claims from which they depend.

CLAIM LIMITATIONS REGARDING PERIMETER AREA AND CENTER AREA

Claim 1 sets forth a semiconductor device that includes a pad metal layer having a perimeter area and a center area. This division of the pad metal layer into sections is later referenced with respect to apertures ("apertures below said center area") and vias ("said vias are below said perimeter area").

In the final Office Action, the Examiner has referenced Tanaka, column 6, lines 20-67 (corresponding to Fig. 1) as containing subject matter that teaches the

aforementioned limitations of Claims 1 and 9. The Examiner equates the pad metal layer with Tanaka element 100. However, Applicants have reviewed Tanaka thoroughly and submit that Tanaka neither discloses nor distinguishes between a perimeter area and a center area of element 100.

Accordingly, the limitations regarding the pad metal layer having a perimeter area and a center area recited in Claims 1 and 9 are not taught by Liu and thus an essential element needed for a prima facie rejection based on the cited reference is not present.

CLAIM LIMITATIONS REGARDING RING ARRANGEMENT OF VIAS

Both Claim 4 and Claim 11 recite that the vias are positioned in a ring arrangement below the pad metal layer. In the final Office Action, the Examiner has referenced Tanaka, column 7, line 15 (corresponding to Figs. 1 and 2A) as containing subject matter that teaches the aforementioned limitations of Claims 4 and 11. However, Examiner's assertion is directly contradicted by subject matter that is disclosed by Tanaka. As noted from figure 2A, the device depicted therein contains conductive materials 110a/b-117a/b. Applicants respectfully submit that conductive materials 110a/b-117a/b as depicted in Fig. 2A are clearly not positioned in ring arrangement, but rather a **grid arrangement**, comprising a plurality of *rows* and *columns* (4 rows and 4 columns in Fig. 2A). Applicants respectfully submit that the grid arrangement of Tanaka *teaches away* from the ring arrangement of the embodiments of the present invention as recited in Claims 4 and 11. Accordingly, the limitations regarding the ring arrangement of via under the pad metal layer recited in Claims 4 and 1 are not taught by Tanaka and

thus an essential element needed for a prima facie rejection based on the cited reference is not present.

CONCLUSION

In summary, Applicants respectfully submit that the Examiner's rejections of the Claims are improper as key limitations needed for proper prima facie rejections of Applicants' Claims are not met by the cited references as outlined above. Moreover, because key limitations of independent Claims 1 and 9 (from which Claims 2-8 and 10-15 depend) are not met by Tanaka, Applicants respectfully submit that the rejection of Claims 1-4, 6-11, and 13-15 under 35 USC 102(e) as being anticipated by Tanaka is improper and should be reversed. Furthermore, because the limitations recited in Claims 4 and 11 are not met by Tanaka, Applicants respectfully submit these claims additionally overcome the rejection under 35 USC 102(e) on their own merit, and thus that the rejection of Claims 4 and 11 is improper and should be reversed. Additionally, because key limitations of Claims 5 and 12 (which depend from Claims 1 and 9 respectively) are not met by Tanaka, and the shortcomings of Tanaka are not remedied by Heim, the rejection of Claims 5 and 12 under 35 USC 103(a) as being unpatentable over Tanaka in view of Heim is improper and should be reversed.